

June 8, 2016

## CURRICULUM VITAE

**NAME:** John Raymond Hyde

**ORGANIZATION:** Department of Commerce  
National Oceanic & Atmospheric Administration  
National Marine Fisheries Service  
Southwest Fisheries Science Center  
8901 La Jolla Shores Drive  
La Jolla, California 92037-1508  
Office (858) 546-7086  
[John.Hyde@noaa.gov](mailto:John.Hyde@noaa.gov)

**PRESENT POSITION:** Supervisory Geneticist  
Leader – Genetics, Physiology, and Aquaculture Program

**EDUCATION:** Ph.D. - Marine Biology, 2007  
Scripps Institution of Oceanography, University of California, San Diego  
  
B.S. - Biochemistry and Cellular Biology, 1997  
University of California, San Diego

### EXPERIENCE:

- |                  |   |
|------------------|---|
| 6/2009 - Present | Supervisory Geneticist<br>National Marine Fisheries Service – SWFSC<br>8901 La Jolla Shores Dr.<br>La Jolla, CA 92037 |
| 6/2007 - 6/2009  | Postdoctoral Fellow<br>National Research Council<br>500 Fifth Street, NW (Keck 576)<br>Washington DC 20001            |
| 7/2003 - 6/2007  | Biological Technician II<br>Aquatic Farms, Ltd.<br>49-139 Kamehameha Hwy<br>Kaneohe, HI 96744                         |

1/2004 - 4/2005	Contracted Scientist Vantuna Research Group Occidental College 1600 Campus Road Los Angeles, CA 90041
7/2003 - 12/2004	Contracted Scientist National Marine Fisheries Service – SWFSC 8604 La Jolla Shores Dr. La Jolla, CA 92037
10/1998 - 9/2001	Research Fishery Biologist National Marine Fisheries Service – SWFSC 8604 La Jolla Shores Dr. La Jolla, CA 92037
6/1998 - 10/1998	Contracted Scientist National Marine Fisheries Service – SWFSC 8604 La Jolla Shores Dr. La Jolla, CA 92037
9/1997 - 6/1998	Research Associate Sterogene Bioseparations, Inc. 5922 Farnsworth Ct. Suite 101 Carlsbad, CA 92008
4/1996 - 10/1996	Fishery Technician Pacific States Marine Fisheries Commission 45 S.E. 82nd Dr., Suite 100 Gladstone, OR 97027-2522

#### **RESEARCH INTERESTS:**

- Population dynamics and ecology of large pelagic fishes
- Evolution, ecology, and biogeography of fishes
- Larval dispersal and population connectivity
- Ichthyoplankton identification
- Kelp forest and deep water reef ecology
- Oceanography of the Southern California Bight and the North Pacific
- Marine mammal population dynamics and social structure
- Post-release mortality of fish
- Physiologic response to anthropogenic and natural stressors

**PUBLICATIONS:**

- Thompson, A.R., J.R. Hyde, W. Watson, D.C. Chen, L.W. Guo. 2016. Rockfish assemblage structure and spawning locations in southern California identified through larval sampling. *Mar Ecol Prog Ser* 547:177-192.
- Pribyl, A.L., J.R. Hyde, L.R. Robertson, R. Vetter. 2016. Defining an ideal temperature range for the northern subpopulation of Pacific sardine, *Sardinops sagax caeruleus*. *Environ Biol Fish.* DOI 10.1007/s10641-016-0473-1
- Purcell, C.M., C.L. Chabot, M.T. Craig, N. Martinez-Takeshita, L.G. Allen, J.R. Hyde. 2015. Developing a genetic baseline for the yellowtail amberjack, *Seriola lalandi*, to assess and preserve variation in wild populations of this globally important aquaculture species. *Conservation Genetics.* (DOI) 10.1007/s10592-015-0755-8
- Wegner, N.C., O.E. Snodgrass, H. Dewar, J.R. Hyde. 2015. Whole-body endothermy in a mesopegic fish, the opah, *Lampris guttatus*. *Science.* 348: 786-789.
- Martinez-Takeshita, N., Purcell, C.M., Chabot, C.L., Craig, M.T., Paterson, C.N., Hyde, J.R. & Allen, L.G. 2015. A Tale of Three Tails: Cryptic Speciation in a Globally Distributed Marine Fish of the Genus *Seriola*. *Copeia.* 103:357-368.
- O'Bryhim, J.R., J. Spaet, J.R. Hyde, K.L. Jones, S.L. Lance. 2015. Development of microsatellite markers for globally distributed populations of the threatened Silky Shark, *Carcharhinus falciformis*. *Conservation Genetics Resources.* 7:463-465.
- Seetharam, Arun, A. Gómez-Iglesias, C.M. Purcell, J.R. Hyde, P.D. Blood, A.J. Severin. 2015. NCBI-BLAST programs optimization on XSEDE resources for sustainable aquaculture. *XSEDE* 2015: 4:1-4:5
- Cardeñosa, D., J. Hyde, S. Caballero. 2014. Genetic diversity and population structure of the Pelagic Thresher Shark (*Alopias pelagicus*) in the Pacific Ocean: evidence for two evolutionarily significant units. *PLOSOne.* DOI: 10.1371/journal.pone.0110193
- Hastings, P.A., M.T. Craig, B.E. Erisman, J.R. Hyde, H.J. Walker. 2014. Fishes of marine protected areas near La Jolla, CA. *Bull. S. Calif. Academy of Sciences.* 113:200-231.
- Hyde, J.R., K.E. Underkoffler, M.A. Sundberg. 2014. DNA barcoding provides support for a cryptic species complex within the globally distributed and fishery important opah (*Lampris guttatus*). *Molecular Ecology Resources.* doi: 10.1111/1755-0998.12268
- Gruenthal, K.M, D.A. Witting, T. Ford, M.J. Neuman, J.P. Williams, D.J. Pondella II, A. Bird, N. Caruso, J.R. Hyde, L.W. Seeb, W.A. Larson. 2014. Development and application of genomic tools to the restoration of green abalone in southern California. *Conservation Genetics* 15(1): 109-121

- Dewar, H., T. Eguchi, J. Hyde, D. Kinzey, S. Kohin, J. Moore, B.L. Taylor, and R. Vetter. 2013. Status review of the Northeastern Pacific population of white sharks (*Carcharodon carcharias*) under the Endangered Species Act. U.S. Department of Commerce, NOAA Technical Memorandum NMFS, NOAA-TM-NMFS-SWFSC-523.
- Lewand, K.O., J.R. Hyde, V.P. Buonaccorsi, R.N. Lea. 2013. Orange coloration in a black-and-yellow rockfish (*Sebastes chrysomelas*) from central California. California Fish and Game 99(4):237-239.
- Buonaccorsi V.P., C. Kimbrell, E. Lynn, J. Hyde. 2012. Comparative population genetic analysis of bocaccio rockfish *Sebastes paucispinis* using anonymous and gene-associated simple sequence repeat loci. Journal of Heredity 103:391-399
- Caballero, S., D. Cardeñosa, G. Soler, J. Hyde. 2012 Application of multiplex PCR approaches for shark molecular identification: feasibility and applications for fisheries management and conservation in the Eastern Tropical Pacific. Molecular Ecology Resources. 12:233-237. doi: 10.1111/j.1755-0998.2011.03089.x
- Buonaccorsi, V.P., A. Bunce, C. Kimbrell, E. Lynn, J. Hyde. 2011. Development of metabolic-process EST-SSR PCR primers within the bocaccio rockfish *Sebastes paucispinis*. Conservation Genet Resour 3:475-477
- Kim, J.K., W. Watson, J. Hyde, N. Lo, J.Y. Kim, S. Kim, Y.S. Kim. 2010. Molecular identification of *Ammodytes* (PISCES, *Ammodytidae*) larvae, with ontogenetic evidence on separating populations. Genes & Genomics 32:437-445.
- Hyde, J.R. and R.D. Vetter. 2009. Population genetic structure in the redefined vermillion rockfish (*Sebastes miniatus*) indicates limited larval dispersal and reveals natural management units. Can. J. Fish. Aquat. Sci. 66:1569–1581.
- Victor, B.C., R. Hanner, M. Shivji, J. Hyde, and C. Caldow. 2009. Identification of the larval and juvenile stages of the Cubera Snapper, *Lutjanus cyanopterus*, using DNA barcoding. Zootaxa 2215:24-36.
- Craig, M.T., R.T. Graham, R.A. Torres, J.R. Hyde, M.O. Freitas, B.P. Ferreira, M. Hostim-Silva, L.C. Gerhardinger, A.A. Bertoncini, D.R. Robertson. 2009. How many species of goliath grouper are there? Cryptic genetic divergence in a threatened marine fish and the resurrection of a geopolitical species. Endangered Species Res. 7:167-174.
- Laidig, T.T., Sakuma, K.M., Hyde, J.R., Watson, W., and Lawley, C.T. 2008. Identification, description, and daily growth of pelagic larval and juvenile squarespot rockfish *Sebastes hopkinsi* (Family Sebastidae). CalCOFI Reports. 49:212-221.
- Hyde, J.R., Kimbrell, C.A., Budrick, J.E., Lynn, E.A., and Vetter, R.D. 2008. Cryptic speciation in the vermillion rockfish (*Sebastes miniatus*) and the role of bathymetry in the speciation process. Mol. Ecol. 17:1122-1136.

- Hyde, J.R., Kimbrell, C., Robertson, L., Clifford, K., Lynn, E., and Vetter, R.D. 2008. Multiple paternity and the maintenance of genetic diversity in the live-bearing rockfishes, genus *Sebastodes*. Mar. Ecol. Prog. Ser. 357:245-253.
- Hyde, J.R. and R.D. Vetter. 2007. The origin, evolution, and diversification of rockfishes of the genus *Sebastodes* (Cuvier). Mol. Phylo. Evol. 44:490-811.
- Hyde, J.R. 2007. Fish and chips: Genetic identification of rockfish larvae and juveniles. In: Conservation of North Pacific rockfishes: Ecological genetics and stock structure. NOAA Tech. Memo. NMFS-NWFSC-80. p35-41.
- Hyde J.R., R. Humphreys Jr, M. Musyl, E. Lynn and R. Vetter. 2006. A central north Pacific spawning ground for striped marlin, *Tetrapturus audax* (Philippi, 1887). Bull Mar Sci. 79: 683-690.
- Hyde J.R., E. Lynn, R. Humphreys Jr, M. Musyl, A.P. West, and R. Vetter. 2005. Shipboard identification of fish eggs and larvae by multiplex PCR, and description of eggs of blue marlin, shortbill spearfish, and wahoo. Mar Ecol Prog Ser. 286: 269-277
- Taylor, C.A., T. Chereskin, J. Hyde, and R. Vetter. 2004. Distributions of larval rockfishes, *Sebastodes*, identified using molecular methods, suggest a pattern of retention near natal habitat in the Southern California Bight. CalCOFI Reports.45:152-165.
- Mesnick S.L., K. Evans, B.L. Taylor, J.R. Hyde, S. Escorza-Trevino, and A.E. Dizon. 2003. Sperm Whale Social Structure: Why it Takes a Village to Raise a Child. In: Animal Social Complexity. Harvard University Press. pp.170-174.
- LeDuc R.G., D.W. Weller, J. Hyde, A.M. Burdin, P.E. Rosel, R.L. Brownell Jr, B. Wursig, and A.E. Dizon. 2002. Genetic differences between Western and Eastern Pacific gray whales (*Eschrichtius robustus*). J. Cetacean Res. Manag. 4:1-5.
- LeDuc R.G., W.L. Perryman, J.W. Gilpatrick, J.R. Hyde , C. Stinchcomb, J.V. Carretta, and R.L. Brownell Jr. 2001. A note on recent surveys for right whales in the southeastern Bering Sea. J. Cetacean Res. Manag. 2:287-289.
- Mesnick S.L., B.L. Taylor, B. Nachenberg, A. Rosenberg, S. Peterson, J.R. Hyde, and A.E. Dizon. 1999. Genetic relatedness within groups and the definition of sperm whale stock boundaries from the coastal waters off California, Oregon and Washington. Admin. Rep. LJ-99-12. Southwest Fisheries Science Center, National Marine Fisheries Service, P.O. Box 271, La Jolla, CA. 10 p.

#### **Current Professional Committees:**

California Sea Grant Panel member (2014 - present)

SWFSC Animal Care and Use Committee member (2014 - present)

Bycatch mortality plan of action committee member (2014 - present)

White Abalone Captive Propagation and Rearing Group (2014 - present)

#### **Conferences and Workshops Chaired:**

Application of the Close-Kin Genetic Methodology to abundance estimates for Pacific Bluefin Tuna (*Thunnus orientalis*): May 27-29, 2015, La Jolla, California USA

Genetic Identification workshop for monitoring Ecuadorian Shark trade: April 27-29, 2015, Manta, Ecuador

Genetic Identification workshop leader at the Regional Workshop on Sharks Listed in Appendix II of CITES - Preparing for Implementation, December 2 - 5, 2013, Recife, Brazil

Genetic Identification workshop leader at the III Taller Interregional Para la Ordenacion y Conservacion de Tiburones en el Oceano Pacifico Oriental (OPO). July 5 - 9, 2010, Manta, Ecuador

59<sup>th</sup> International Tuna Conference. May 19 - 22, 2008, Lake Arrowhead, California, USA

#### **Recent and Current Graduate Students:**

Dovi Kacev - Ph.D. (2015) - San Diego State University, San Diego, CA

Elizabeth Smith - M.S. (2015) - University of San Diego, San Diego, CA

Dustin Chen - M.S. (current student) - University of San Diego, San Diego, CA

Amber Michaud - M.S. (2010) - University of San Diego, San Diego, CA

Diego Cardenosa - M.S. (2014) - Universidad de los Andes, Bogota, Colombia

- Ph.D. (current) Stony Brook University, New York

#### **Recent and Current Postdoctoral Fellows:**

Catherine Purcell (2011 - present) - Population genetics and genomics of California yellowtail (*Seriola lalandi*).

Nicholas Wegner (2011 - 2013) - Post-release survival of rockfish (*Sebastodes* spp.) suffering barotrauma injury

Alena Pribyl (2009 - 2012) - Thermal stress physiology of sardine (*Sardinops sagax*)

### **Field Experience:**

- Extensive marine sampling experience (including: longline, hook & line, spear, gillnet, otter trawl, beam trawl, IK trawl, CalCOFI bongo, MOCNESS, fish and crustacean traps)
- Handling live animals (including: bony fishes, sharks, rays, billfish, turtles, squid, dolphins, pinnipeds)
- Tagging (conventional, chemical, and electronic tagging of fishes, turtles and cetaceans)
- Animal necropsy (including fish, squid, and marine mammals)
- Identification and sorting of ichthyoplankton
- Acoustic tracking (VHF and ultrasonic)
- Small boat operation (current NOAA certification)
- Projectile biopsy sampling of cetaceans
- Photo identification of marine species
- Line transect surveys
- Scientific SCUBA diving (current NOAA certification)